



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/569,487	07/24/2006	Aicke Patzelt	2920-121	3446
6449	7590	10/28/2009		
ROTHWELL, FIGG, ERNST & MANBECK, P.C. 1425 K STREET, N.W. SUITE 800 WASHINGTON, DC 20005			EXAMINER ELDRED, JOHN W	
			ART UNIT 3641	PAPER NUMBER
			NOTIFICATION DATE 10/28/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary	Application No.	Applicant(s)	
	10/569,487	PATZELT ET AL.	
	Examiner	Art Unit	
	J. Woodrow Eldred	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-58 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 30-58 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2-24-06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>02242006, 07242006</u> . | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) <input type="checkbox"/> Notice of Informal Patent Application
6) <input type="checkbox"/> Other: _____. |
|--|--|

DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 33-48 and 50-58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 33, "without any additional fluid/aerodynamic flow resistance when the flap is retracted" is vague and indefinite since it is not clear to what this relative measurement (i.e. "additional") is being compared.

In claims 34 and 36, "fluid! aerodynamic" is indefinite and unclear. It appears to be a typographical error.

The claims are replete with uses of the word "can" which renders the claims indefinite because it is not clear if applicant is claiming the elements or functions to which it refers as a limitation or merely as being capable of having such elements or functions.

Examples include claim 36, "can be attached to the object"; claim 44 "can be covered by a cover"; and claim 50 "can be swivel-connected to the front shell".

The claims are replete with the use of alternative phrases such as "and/or", "is/are", and "or". These phrases render the claims alternative and indefinite. Examples include:

Claim 36, "front shell and/or the rear shell ... attached to the object and/or the flap by means of discrete or continuous fitting or similar attaching elements"; Claim 39 "is/are of single-or multicell construction"; and Claim 40 "is/are completely or partially of". These are merely illustrative of the numerous uses of these alternative phrases and each instance in the claims should be addressed.

In claims 36, 37, 38, and 58 the word "similar" renders the claims indefinite since it is not clear in what way the different elements are required to be similar.

In claim 37, it is not clear what comprises an attaching element "of linear form" or "flat design".

Art Unit: 3641

In claim 41, “trans verse” apparently should read “transverse”.

In claim 43, “consists of essentially of a U-shaped outer shell” is vague and indefinite since it is not clear if this means the shape is essentially U shaped or other elements are involved other than the outer shell, but the shell is the essential element.

In claim 43, “if necessary, a closing cover” is vague and indefinite since it is not clear when a cover would be necessary or if the cover is being claimed.

In claims 42, 45, 53, and 57 the use of the terms “in particular” or “particularly” render the claims indefinite since it is not clear if the elements being referenced are positively being claimed or if these are mere possibilities.

In claim 48, it is not clear what limitations are involved in a coating that “makes surface changes or damage visible”.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 30-39, 43, 44, 49-52, and 54-58 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Siers (5,788,190).

Siers disclose a support structure for a retractable and extendable flap associated with an object (i.e. a wing) surrounded by a flowing fluid with all claimed elements. This includes a wing 30 corresponding to the claimed “object”; a fairing 60 with a shell profile, the fairing comprising a forward stationary shell element 62 and a rear movable shell element 64, where the stationary portion of the shell will transmit forces to the wing; the fairing 60 having an aerodynamic outer surface and an inner chamber; a retracting and extending device (including actuation element 28, pallet 34, track 44, arm 70, carriage 46, wheels 48) which is held within the chamber of the fairing 60. See especially Figures 1 and 2. As to claim 39, note that without further limitation of “cell”

Art Unit: 3641

the shape of the disclosed fairing is considered to inherently read over "a single or multicell construction".

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 40-42, 45-48, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siers (5,788,190) in view of Brick et al (6,432,507).

Siers disclose a support structure for a retractable and extendable flap associated with an object (i.e. a wing) surrounded by a flowing fluid with all claimed elements. This includes a wing 30 corresponding to the claimed "object"; a fairing 60 with a shell profile, the fairing comprising a forward stationary shell element 62 and a rear movable shell element 64, where the stationary portion of the shell will transmit forces to the wing; the fairing 60 having an aerodynamic outer surface and an inner chamber; a retracting and extending device (including actuation element 28, pallet 34, track (i.e. rail) 44, arm 70, carriage 46, wheels 48) which is held within the chamber of the fairing 60. See especially Figures 1 and 2. Siers fails to disclose any details of the construction of the shell, specifically failing to disclose a "sandwich" or "composite" construction; stiffeners; plastic, fiber-reinforced plastic or composite, metal; or a coating that is conductive, resistant to stresses, or shows surface changes or damage. Also, it is not disclosed that the rail is made of metal. Brick et al teach the missing elements in an aircraft, including a conductive coating on an aircraft's skin (see column 2, lines 19-65 and column 3, line 18-20); the use of either metal or composite materials to form aircraft surfaces (see column 1, lines 33-55); and the use of stiffeners (i.e. metal or composite honeycombs, see column 3, lines 11-20) to form cowls or fairings. Motivation to

Art Unit: 3641

combine is the mere substitution of known materials and elements for unspecified materials and elements to perform the same function of aircraft construction and the improved performance available by having a coating for lightning protection. To employ the teachings of Brick et al on the aircraft of Siers and form the aircraft elements from metal or composites; to have stiffeners within the shell; and have a conductive coating on the shell is considered to have been obvious to one having ordinary skill in the art. As to claims 47 and 48, the disclosed coating of Brick et al is considered to inherently meet the limitations of “resistant to shock and impact stresses” or that “makes surface changes or damage visible”, since any coating will provide at least some increased strength to the element being coated and a maring of any coating will show “changes or damage.”

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Woodrow Eldred whose telephone number is (571)272-6901. The examiner can normally be reached on Monday to Thursday, from 8:00 a.m. to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. Woodrow Eldred/
Primary Examiner
Art Unit 3641

JWE